sealift

MAGAZINE OF THE MILITARY SEALIFT COMMAND
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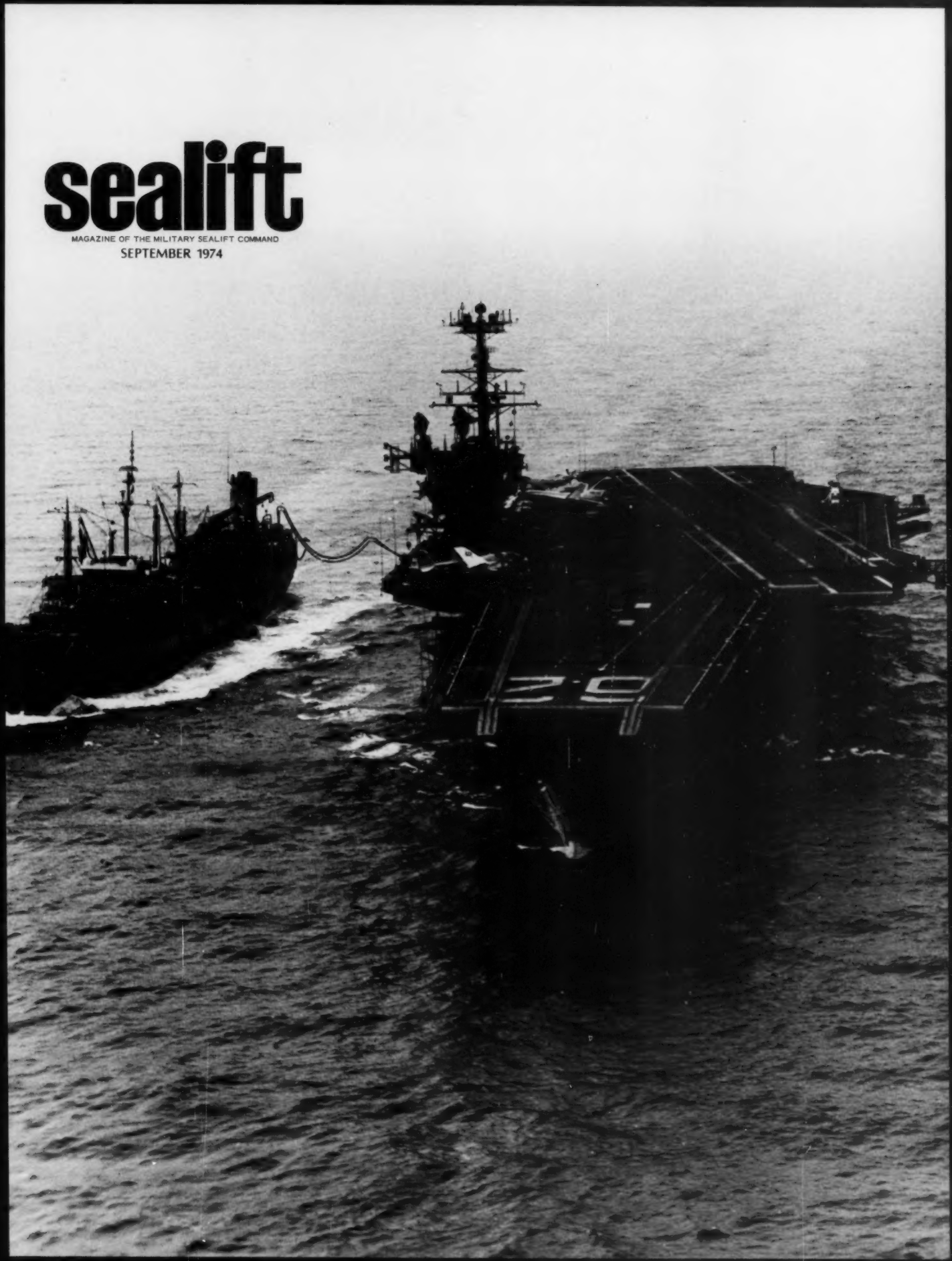


Studying The Statistics

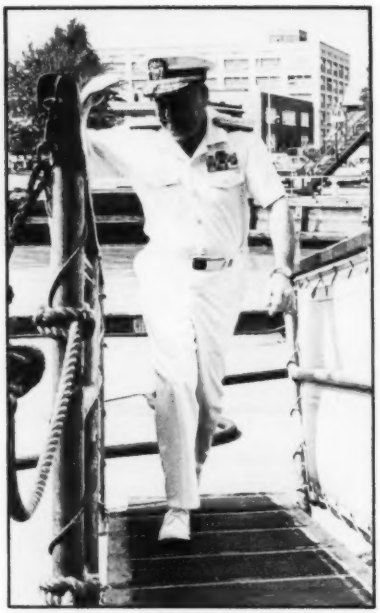
"Statistics show that the best time to buy anything is about 40 years ago." The philosophy expressed in a quote from a business magazine strikes a responsive chord in all of us who are coping with higher prices in almost every field. In MSC we are particularly concerned with the tremendous impact of higher costs on our current and future budgets.

Because of his concern, the Assistant Secretary of the Navy for Installations and Logistics recently directed that MSC, with help from the Navy Comptroller and OPNAV, conduct a study and recommend possible courses of action as a means of "Minimizing transportation costs ... (while) ... providing necessary service to the military departments."

That study is now under way at MSC headquarters. MSC area commanders also have been asked to provide data which should be considered, and recommendations to support our objectives.

Simply stated, we have two broad goals. One is to minimize future increases in sealift cost. The other is to implement policies and procedures which insure that we will recover the cost of all sealift service provided.

Initially, the study effort will be restricted to three



general areas. First, we must identify where and how we can make economies. Secondly, we need to determine where we can reduce service presently provided, again as a means of lowering overall cost. Finally, we will seek to determine how we might restructure our billing practices to insure that we do recover the cost of service provided.

Obviously, the task is not going to be easy. In the past, MSC has been a can-do outfit which sought to fulfill military requirements in the manner and within the time frame requested. Recent deficits demand stringent measures to insure greater economy of operations.

We must increase ship utilization. In some cases, the level of service now provided may be lower than in the past. In other instances we may even have to eliminate service—such as that provided by systems contracts—and find a cheaper if slightly less effective means of meeting requirements.

Consolidation of cargo for effective movement is going to have to become a routine way of life for both the shipper and sealift manager. While continuing to develop the assets, techniques and skills necessary to meet contingency requirements, we also have to operate as efficiently as the best commercial shipping company during peacetime.

Some factors are beyond our control. We cannot, for instance, eliminate the underlying causes of increases in fuel, material or labor costs. We have little influence on rates charged by commercial companies, since these are also subject to worldwide inflationary pressures.

But, we can improve MSC management of assets we control, by validating requirements, by increasing ship utilization, by better scheduling, by improving service, and by any other means consistent with our goal of providing the best possible service at the lowest dollar cost.

John D. Chase

Commander, Military Sealift Command

CORRECTION

The August 1974 issue of Sealift was incorrectly printed as Vol. XXIV No. 9. It should have read Vol. XXIV No. 8.

COVER: USNS Marias transfers fuel to the Navy carrier USS Independence. See story on other fleet support operations on page 4.

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sealift

MAGAZINE OF THE MILITARY SEALIFT COMMAND

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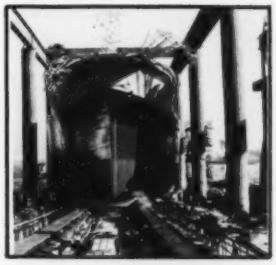
Features:

Page 4

Fleet Support

Getting bigger and better all the time, MSC's fleet support force is examined in a round-up of news from the tugs and tankers.



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End of the Beginning

The culmination of one of the most ambitious programs ever undertaken by MSC, Sealift Pacific and Sealift Atlantic, the first of nine new 25,000 ton tankers go to work.

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View From Up Yonder

John L. Eyre, president of Saguenay Shipping Ltd. of Toronto, Canada examines the U.S. Merchant Marine and speculates on the possibilities for a Canadian deep sea merchant fleet.

Also:

Towboat U. — page 8
Women at the academy — page 12
Seven-masted schooner — page 20

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Tug, tug, tuggin' along

When tugboats are mentioned, many conjure up images of Marjorie Main as "Tugboat Annie" making life wonderfully miserable for a bumbling, "aw gee" Wallace Berry. And there are the old cartoons of the poor little tugboat vainly trying to escape destruction by villainously portrayed luxury liners. However, too few persons realize that little port or river traffic would move without the help of powerful tugs, and fewer still know that the Navy's combatant ships would be relatively helpless were it not for the support given by ocean-going tugs.

Tugboats could be likened to ants. They are small but able to move hundreds of times their own weight. Navy tugboats, as elements of the mobile logistics support fleet, are used to salvage and tow combatant ships damaged in battle or by accident. In peacetime, they are routinely used to tow barges, floating cranes and inactive ships between National Defense Reserve Fleet anchorages and overhaul yards. They also pull targets for gunnery practice, and perform rescue, diving, repair and salvage operations. In expansion of its fleet support role, Military Sealift Command acquired two fleet tugs from the Navy in early 1973. Lipan and Mosopelea, were overhauled, redesignated United States Naval Ships, manned by Civil Service mariners, and immediately went back to serving combatant fleets. Since then, the ships have racked up many kudos. Last July, MSC received another tug, Atakapa. Also manned by a Civil Service crew, she has been operating with the Atlantic Fleet but is due to go into overhaul this fall. Immediate overhaul was delayed to take advantage of better summer towing weather.

Lipan is presently serving the Third Fleet, but for nearly a year was actively involved in supporting the Seventh Fleet in the Far East. After she had pulled targets for a day of Seventh Fleet gunnery practice, Capt. L.C. Chambers, commanding officer of USS White Plains, radioed Lipan Master Phillip J. Rosten, "The responsiveness of Lipan in getting under way early in the morning with less than 12 hours notice is sincerely appreciated. Your can-do spirit enabled USS White Plains to expedite her gunnery exercises and enter port prior to darkness after an extended period under way. Lipan conducted her tasks with dispatch and professionalism. Well done!" The ship was selected over two other Navy tugs as the best performing tug by the commander of the Seventh Fleet.

A task unit of the Seventh Fleet later radioed Lipan, "The service provided us was highly professional and greatly appreciated. Please pass our personal thanks and well done to all hands in Lipan." The tug is now commanded by Capt. Miles W. Hoff.

Fleet Support: A *Growing* Concern

The quality of Lipan's performance was perhaps best indicated by her No. 1 rating among three Seventh Fleet tugs during the past quarter.

Unfortunately, it's not all happy and uneventful sailing among fleet support tugs. Lipan, on October 4, collided with the tanker SS Atlantic Prestige in the straits of Juan de Fuca off the coast of Washington. Although there was no damage to the Atlantic Prestige, the Lipan sustained a hole in her starboard side and had to be towed to Seattle for a survey of damages and repair.

Mosopelea, commanded by Capt. Henry Pouttu, has been operating with the Atlantic Fleet for almost a year and performing similar tasks. Last March, while towing a yard craft, Mosopelea crewmen discovered the vessel was taking on water and in danger of sinking. They immediately started salvage operations and saved the craft. For its work, the crew of Lipan was commended by the commander of Service Squadron Eight, Capt. T.W. Cuddy, who radioed, "Your performance during tow of Yard Craft 750 is considered superb. Emergency repairs and dewatering procedures were accomplished in a most professional manner."

USNS Atakapa, newest addition to MSC's fleet support program, is commanded by Capt. Manuel G. Vieira.

Lipan, Mosopelea and Atakapa, like all fleet tugs of the Apache class, carry American Indian names. The ships are 205 feet long overall, have a beam of 38½ feet and draw 15½ feet of water. Fitted with powerful pumps and other salvage equipment, each is driven by a 3,000 horsepower diesel engine. *HLR*

USNS Mosopelea is nudged from her berth at the Washington Navy Yard by the yard tug Potomac.

Joining the Fleet

In July MSC received the Navy oiler USS Mispillion from the Pacific fleet for redesignation as a United States Naval Ship and manning by Civil Service mariners. In August, the command took over the USS Ute. In January, the fleet oiler USS Waccamaw also will join MSC's expanding fleet support force. CNO has been studying the possibility of transferring a refrigerated stores ship to MSC for civilian manning.

Capt. Henry Phelps greets Capt. Thomas Flynn, (left) master of the chartered tanker Spirit of Liberty.

Flexible Fleet Support

Flexibility of MSC's fleet support ships was a distinct asset in maintaining vital supply lines to Navy fleet units during the recent crisis in the Mideast.

When hostilities broke out between the Arabs and the Israelis last October, the Navy needed fuel transported from depots to fleet oilers for refueling combatant ships. The commanders of the Sixth Fleet in the Mediterranean and units of the Seventh Fleet on duty in the Arabian Sea and Indian Ocean called on MSC to provide needed services.

Normally, MSC-chartered tankers carrying government cargo deliver fuel to fleet oilers only when it does not seriously interrupt regular point-to-point deliveries. The fleet oilers rendezvous with the merchant tankers and fuel is transferred under way. This MSC fleet support role is part of the Charger Log IV program.

To fulfill requirements of the combatant fleets during the Mideast crisis, a number of chartered tankers were taken off their normal runs and placed under operational control of the fleet commanders. The ship owners were paid on a per day basis.

Taluga tops

MSC's first fleet support ship, the oiler USNS Taluga, will receive a 1974 National Defense Transportation Assn. unit award for outstanding operational performance by a Navy unit during the association's convention in Las Vegas, Nev. this month. Other outstanding units to be honored represent the Army, Air Force, Marine Corps and Coast Guard.

Taluga was chosen over all other Navy nominees for her performance during operations with the Seventh Fleet in the Pacific and Indian Ocean during 1973. During that time, Taluga was commanded by Capt. Lawrence O. Nasset, now master of USNS Marias.

After announcement of the award, Vice Adm. George P. Steele, commander of the U.S. Seventh Fleet radioed the crew

Since the Spirit of Liberty was on a routine run in the Mediterranean, she was turned over to the Sixth Fleet and made several underway deliveries to Navy oilers. Just prior to the war, Spirit of Liberty had been involved in her first underway replenishment of a Navy oiler as part of Charger Log IV. Between Oct. 26, 1973 and Nov. 23, 1973, the Spirit of Liberty consolidated fuel with three different Navy oilers on seven occasions. (A consolidation is a transfer of fuel from one tanker to another). The oilers were USS Pawcatuck, Truckee and Seattle.

In addition, two MSC government owned T-2 tankers, USNS Cossatot and Saugatuck, replenished the supplies of the Spirit of Liberty. After consolidating with USS Truckee, Capt. Thomas F. Flynn, the master of Spirit of Liberty, received a message from the Truckee skipper who said, "If that was the second time at bat, it was a home run. Enjoyed working with your professional crew and looking forward to the next time!"

When Spirit of Liberty returned to regular operations, USS Pawcatuck's captain radioed Captain Flynn, "In every contact with the Spirit of Liberty, the cooperation and professionalism of master and crew have been outstanding."

Commander-in-Chief of Naval Forces, Europe, Adm. Worth H. Bagley, now vice chief of naval operations, wrote Flynn, "The ability of the Sixth Fleet to sustain the required high state of readiness during the recent period of tension was materially enhanced by the ability of Spirit of Liberty to meet a myriad of requirements. The level of performance was truly outstanding and is acknowledged with thanks and appreciation."

At the same time, SS Trojan, Sandy Lake, Exxon Seattle and Council Crove, were diverted from their normal deliveries and tasked to serve Seventh Fleet oilers in the Indian Ocean and Arabian Sea.

In one day, Sandy Lake consolidated with the USS Mispillion and the Ashtabula. The Ashtabula captain radioed Sandy Lake, "You demonstrated excellent knowledge of consolidation rigging in view of limited experience. Your seamanship was excellent and though short, it was a pleasure working with you."

Similar plaudits were sent to the other ships operating in the Arabian Sea.

In another aspect of Charger Log IV, SS Council Grove replenished the aircraft carrier USS Ranger while both were under way. The July operation marked the first time a commercial tanker passed fuel to a carrier of the Pacific Fleet. *HLR*

of Taluga, "From this vantage point there is little doubt that you earned the honor. Over the last two years your performance in support of the Seventh Fleet, both in wartime and peacetime operations, has been nothing less than superb. We look upon Taluga as a vital and valuable member of our team. Congratulations!"

Rear Adm. John D. Johnson, commander of Task Force 73, echoed Admiral Steele's comment. He said, "This singular recognition is indicative of the outstanding support Taluga has continually provided to units of the Seventh Fleet and Mideast Force. In this period of fleet operations, Taluga's readiness has always been without peer and I am proud to have her in Task Force 73. Keep up the good work."

Towboat U.

Way down upon the Mississippi

By Linda McDaniel

Superintendent Pierre R. Becker.

Many young boys have dreamed of becoming river pilots over the ages, among them Samuel Langhorne Clemens. He made his dream come true in the 1800s by apprenticing himself to master pilot Bixby. Clemens, better known as Mark Twain, described his Mississippi River adventures through characters such as Tom Sawyer and Huckleberry Finn. His colorful stories may have inspired countless youths to dream of life as a river pilot.

There is still a need for river pilots, but young men now can learn

Artist's rendering of the National River Academy, Helena, Ark., in about three years.

the profession in a unique school. They need no longer acquire years of experience.

Any healthy young man with an earnest interest in learning river piloting can enroll in the National River Academy of the United States. Applicants must be between the ages of 17 and 27, be a high school graduate, and have good vision.

Located 10 miles south of Helena, Ark. on 90 acres of land, the only-one-of-its-kind academy offers 22 months of training. A $1,000 a year fee covers tuition, room and board at Tugboat U, a name given the school by the students.

Students learn the "rules of the road," some engineering, how to read charts, and use of navigation aids.

The curriculum provides two months of field training for every two months of classroom work. The overall training site is a large one, encompassing the Mississippi River and its tributaries.

The National River Academy was established in January 1970 by a corporation made up of prominent river industry leaders who recognized the growing need for river pilots. The first class started in October 1972.

Among the corporation's 21 members are 13 towboat companies. Others include firms involved in river related functions. Companies which support Tugboat U. fall into three categories, regular, associate, and affiliate members.

Regular members are owners or operators of river vessels. Associate members include firms, corporations, or personnel connected with the river industry. Individuals or nonprofit organizations interested in the industry are affiliate members.

Many of the academy cadets are sponsored by member companies and spend 50 days of their two-month field training aboard company vessels. They are given leaves during the other 10 days but a cadet may work for regular wages if he decides to stay aboard.

Academy Superintendent Pierre Becker, former head of the damage control program at Military Sealift Command, Atlantic, said most of the cadets take their 10 days leave. "We don't pressure them to remain aboard. The river training is a lot more than just learning how to handle lines, tie up a tow and all that."

"Very basic is their ability to live in relatively close quarters with their shipmates. There are pressures stemming from differing backgrounds and education. Our cadets also take a good deal of kidding." The kidding, he explains, is because of the uniqueness of the academy.

A member of the first graduating class at Kings Point and a retired Navy Reserve captain, Becker feels National River Academy cadets compare somewhat to World War II 90-day wonders — those who earned military commissions in 90-days. Some oldtimers find it hard to believe that someone can learn the river in such a short time, by what they consider unorthodox methods.

For example, cadets learn and practice docking techniques in a small towboat beached on a parking lot studded with butts and bollards. Valves and pipes close by make the area resemble a tank barge. The towboat, named Little Rock, plays an important part in helping teach the cadets the first steps of deck-to-dock line handling.

The most innovative aspect of the training features a simulator, much like those used to train airline pilots.

The river simulator trainer, when operational, will offer sophisticated training. After completion of simulator training, a student is 90-per cent ready to handle piloting tasks for it realistically duplicates circumstances a pilot will experience when he controls a towboat and her tow.

On the simulator, the instructor can vary such conditions as river currents, wind velocity and direction, and visibility. Emergencies such as engine failures, generator failures, or the appearance of an unexpected vessel also can be realistically produced.

The simulator can be used to upgrade present pilots to handle larger towboats, and to re-check masters and pilots every six months.

The academy offers several short courses for young men working on the river who want to obtain Coast Guard licenses or certificates.

A three-week course is available for experienced personnel who served as master-pilot aboard vessels prior to adoption of the new licensing system.

In addition, the academy has a three-week course leading to an operator's license for experienced steersman-deckhands, and a similar course for mates. Other courses, ranging in length from one week to four, train tankermen, engineer deckhands and radar observers. Tugboat U. even has a course for cooks.

Cadets learn a lot at the academy. The two-year curriculum includes subjects ranging from river history to engineering graphics.

Refrigeration and air conditioning are part of the program as are technical writing, rules and regulations, river pilotage, electronic pilotage, towboat and barge economics, maritime law, marine surveying, insurance, barge construction, and diverse related subjects.

The nine full-time instructors on the faculty have worked for various elements of the river industry for many years. In addition, guest lecturers visit classes and conduct sessions on river related topics, such as insurance.

The National River Academy accepts between 20 and 25 students twice a year. Classes begin each spring and fall.

In August, the first class of 14 cadets graduated and went on to take Coast Guard examinations for licenses.

As for the academy's future, Captain Becker says, "For a few years, we will have a very limited number of students. I wish we could double up every year, but we just don't have the living quarters. As we expand, our first concern will be to provide the best in teaching, both in terms of instructors and tools." ⚓

Workin'

Sealift class tankers join the fleet

USNS Sealift Pacific, the first of nine privately-owned 25,000-dead-weight-ton tankers built for long term charter to Military Sealift Command went into service last month carrying petroleum products along the West Coast.

The ship moved down the ways at Todd Shipyards Corp., Los Angeles division, in October 1973. Following completion of the superstructure construction and extensive sea trials, she was delivered August 14.

Sealift Atlantic was delivered August 26 and Sealift Arabian Sea and Sealift Mediterranean will be in service by October. Sealift China Sea and Sealift Caribbean are scheduled to begin operations by January and Sealift Indian Ocean, Sealift Arctic, and Sealift Antarctic are expected to be in service by next March.

Sealift Pacific, Sealift Arabian Sea, Sealift China Sea, and Sealift Indian Ocean were built by Todd. The other five were built by Bath Iron Works Corp., Bath, Maine.

The nine ships were built under a Navy-devised build-and-charter program. Commercial shipping companies and financial organizations formed a consortium to pool their resources, bonds were sold and the necessary $160 million was raised for construction.

Crewing, maintenance and management of the new Sealift-class tankers are provided by Marine Transport Lines under a contract with MSC. Mates are affiliated with Masters, Mates and Pilots Union, the engineers with Marine Engineers Beneficial Assn. and the radio officers with the Radio Officers Union of the United Telegraph Workers. Unlicensed crewmen are members of the National Maritime Union.

Each ship will have a crew of 26, including nine officers and 17 unlicensed deck personnel. Two

Sealift Pacific on launching day, left, and at anchor following sea trials, below.

maritime academies also will sail aboard each ship.

Officers of Sealift Pacific are Capt. Robert Pelham, Chief Mate Leslie Anderson, Chief Engineer Clifford Thompson, First Asst. Engineer Frank Walsh, Second Asst. Engineer Kenneth Helgeson and Third Asst. Engineer Jesse McPherson.

Anderson became master of the Atlantic when she went into service. When Sealift Arabian Sea begins operations, Captain Anderson's chief mate will become her master and so on down the line. Same goes for the first assistant engineers.

As each ship goes into operation, a captain and chief engineer thoroughly familiar with the new class of tankers will be at the helm and in the engine room.

The Sealift-class tankers all have special features designed to meet MSC requirements. All have two limited underway refueling stations on raised platforms. Though the ships are intended principally for point-to-point transportation of petroleum products, the raised platforms allow the tankers to be used as oilers, refueling other vessels while under way. They can deliver 6,000 barrels per hour at each station.

Unlike Navy oilers which have the entire deck above the tanks raised for transferring everything from petroleum to food and mail while under way, the Sealift-class tankers will be able to transfer only petroleum. Hence, the term "limited." The ships also have a high-line station for transferring people while under way.

The Sealift-class tankers are equipped with electric powered bow thrusters for better maneuvering. The highly-automated ships also have bridge consoles enabling deck officers to control the main engines.

The cargo system consists of 21 cargo tanks divided into four smaller systems which are inter-connected so that any section may be used as part of an adjacent system. This provides flexibility in carrying several types of petroleum products.

The three tanks in the aft section also can be segregated by separate lines in the pump room so that small quantities of a product can be carried. All cargo tanks and lines are epoxy-coated and each tank has independent vent lines.

Normally 52 per cent of the ships' 220,000 barrel capacity will be jet fuel and 30 per cent boiler fuels. The other 18 per cent will be diesel, motor gas, kerosene and other products.

The ships have an overall length of 587 feet, a beam of 84 feet, a depth of 45½ feet and draw 32½ feet of water. They have a cruising speed of 16 knots and are powered by two medium speed non-reversing diesel engines. Cruising radius is 12,000 nautical miles.

The tankers will supply Army, Navy, Air Force and Marine Corps bases worldwide. As requirements permit, World War II vintage T-2 tankers still operated by the command will be replaced by the Sealift-class tankers which can carry 85,000 more barrels of fuel than the older ships. *HLR*

Nancy L. Wagner of Woodcliff Lake, N.J. steps forward to collect her name tag.

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Victoria Panuska, North Valley Stream, N.Y. struggles with her bedding.

Marching to class.

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canceled just before the reporting date last July and another failed to appear for the first day's roll call.

The four-year academy curriculum includes two six-month periods at sea when the midshipmen receive shipboard training. Ultimately they will qualify for a U.S. Coast Guard license as either third assistant engineer or third mate, a Bachelor of Science degree, and a commission as ensign in the U.S. Naval Reserve.

The academy is a federal institution operated by the Maritime Administration of the U.S. Department of Commerce. It is the first federally funded service academy to admit women.

A Canadian View

By John L. Eyre

Canada has virtually no deep sea merchant marine. As Canadians, we are bound to wonder about this. We are a trading nation, perhaps more dependent on ships than our friends in the United States, Russia and China. The United States spends about a billion dollars each year to support a merchant marine that carries less than 6 per cent of her trade. Russia has a growing shipping empire and emerging nations such as Ghana, Kuwait and Bangladesh also have ambitious shipping programs. Cuba will not be far behind.

How does this curious pattern bear upon the jobs and families of Canadian workmen who depend on pulp and paper, aluminum, iron ore, textile, food and other basic industries?

Having recently been exposed to maritime nationalism in Kuwait, Australia, Brazil, West Africa and the United States, I have some thoughts on the question. Major maritime nations like the United Kingdom and Japan argue that they offer the best of all possible rates and services. This is probably true, but logic may not matter. With the rise of Third World maritime powers, perhaps Canada should reconsider her position.

"Canada has virtually no deep sea merchant marine. As Canadians, we are bound to wonder about this."

Iron ore, which represents about 30 per cent of Canada's export tonnage moves mostly from Labrador and other Eastern Canada ports. About 10 million tons a year goes to Europe and the United Kingdom. Wheat and other grains represent about 20 per cent of Canada's export tonnage, but a great deal more in terms of Canada's overall economy.

Lumber, timber, newsprint and woodpulp move from both coasts of Canada to United States and world markets. These represent over 10 per cent of Canada's exports.

On the import side, crude petroleum is the largest item by weight arriving at Canadian ports. Thirty-two per cent of all imports are petroleum products, coming from South America and the Middle East. Bauxite and alumina are imported from the Caribbean and Australia to British Columbia and the Province of Quebec.

In tons, our trade by sea is about 4 per cent of total world trade, which is impressive. However, our share, in terms of population, gross national product and other worldwide scales, is far less.

The general cargo or packaged freight world is today in the throes of a fascinating revolution. Twenty years ago, most of Canada's manufactured goods moved

"The general cargo or packaged freight world is today in the throes of a fascinating revolution."

aboard liner type ships equipped with cranes or derricks. These ships are rapidly disappearing.

Highly-mechanized container ships have begun to dominate the general cargo commerce of most developed nations. Container ship activities in port are almost totally mechanized through the use of large cranes, generally mounted ashore.

The rates, schedules and service levels of these liner ships are dominated by the major world shipping powers. The United States has sought to protect its exporters and importers through an incredibly complex series of regulations. Developing nations have sought protection by establishment of their own maritime fleets. The general cargo fleet is today predominantly owned in the United Kingdom, Europe and Japan. However, developing nations have a third of this fleet and are increasing their share.

In between the bulk carriers and scheduled packaged freight liners, there are a large number of tramps and combination ships that move cargo sometimes described as "neo bulk." These transporters of steel, paper, high-value ores, automobiles and some heavy machinery generally resemble the bulk carriers in their operations, though they frequently enjoy raiding the markets of the packaged freight liners.

About 80 per cent of Canada's ocean commerce moves in large tankers and bulk carriers. Most of these ships sail under Liberian, Japanese, British and Scandinavian flags.

The top nations in the bulk cargo world operate fleets which are virtually strike-free. Crew wages for a modern tanker or bulk carrier represent less than 10 per cent of total daily costs and are still declining as a percentage of

total operating cost.

A small nation, Uruguay for example, feels lonely and unprotected in the maritime world. Her general cargo exports and imports have traditionally been carried by liner vessels owned and dominated in the United Kingdom, European nations or Japan.

Canada's position is different. An exporter in Toronto, seeking an alternative to Canadian shipper service to Jamaica, can move his cargo to New York where he has a choice of several carriers, or to Florida where even more seek his trade. Canadian packaged freight exporters and importers on both coasts have an option.

Therefore, a Canadian ship operator must try to be competitive in rates and services with neighboring U.S. carriers serving Boston, Seattle, Baltimore, Miami or U.S. Gulf ports. Most of these rival carriers enjoy government subsidies or tax benefits.

It would seem there is enough competition in ocean shipping to protect Canada's industry. This may explain why there is no real clamor from Canadian labor or industry for a national flag merchant marine. The freedom to select ships and flags which suit them best is an important asset, one which people and industries in other parts of the world do not enjoy.

But government labor and management leaders should ask themselves if the present maritime situation will still be satisfactory in 1985. There are reasons for concern. German, Danish, Russian and U.S. ships sail into the Canadian Arctic frequently because nothing is available under our flag. The energy crisis and unforeseen crop conditions have forced the ship charter market to fluctuate wildly.

The container revolution has transformed, at least on major trade routes, the general cargo business into a big-league exercise dominated by giant combines. A

"The top nations in the bulk cargo world operate fleets which are virtually strike-free."

single modern container ship in trans-Pacific or trans-Atlantic trades costs $30 million or more. Cost of containers add another $10 million per ship and yet a half dozen ships constitute only a modest fleet. In addition, shipping companies must have expensive terminals, tie-in deals with connecting carriers like railroads and trucking concerns, and sales offices throughout the country and the world. The investment required is so great that international government and industry consortia have become essential. Even so, massive losses have been incurred since 1970.

The technological picture also is uncertain. Container ships, LASH, and roll-on, roll-off ships all vie for cargo. This is a jungle which Canada might well avoid.

If Canada abstains from world competition for the next five years, her defenses against monopolistic high rates and poor service will lie in several areas.

Canada has used her anti-trust legislation effectively once. She could do so again. By following precedents set

"A Canadian ship operator must try to be competitive in rates and service with neighboring U.S. carriers."

by the U.S. Maritime Commission anti-trust efforts on the high seas, Canadian industrial shippers have benefited by demanding protection on a "me too" basis. Also of great importance is the fact that the United Nations Conference on Trade and Development (UNCTAD), with support of the developing nations, is working toward a worldwide regulatory structure which might reduce international container ship, roll-on, roll-off and LASH activities to the status of highly-regulated international public utilities.

Secondly, Canada might have ships participating in world trade. The big container consortia quickly entered the lucrative European and Australia trade. As a result, the Australian government with support from industry, threatened to close down the whole show if an Australia flag vessel was not included. If the big container, roll-on, roll-off and LASH consortia monopolize the shipping profits in Canada, it should be possible for Canada to similarly demand the presence of at least one Canadian flag general cargo ship in the Vancouver-Pacific trade and one in the Atlantic trade to Europe.

Canada's coastline puts us in a class with Russia, the United States, Australia, China and Brazil. However, our deep sea maritime presence is eclipsed by countries like Nicaragua, Singapore and Ghana. Why do other nations pursue maritime programs — usually incurring heavy losses in the process? Six reasons are most often mentioned.

They are national pride, employment, military considerations, balance of payments, protection of trade and keeping in step with the rest of the world.

In sailing ship days, the flag could be seen at the foot of Main Street in Montreal, Vancouver, Bangkok, London and New York. Today, the flag is more visible on airplanes. National pride has faded as a rational

reason for promoting a merchant marine. Ships are highly-sophisticated, automated, industrial hardware. They call at terminals far removed from the city center and the public eye.

Harking back to the days when freighters carried 50 men or more, political and union leaders have talked about payroll and employment. However, the vessel of tomorrow will carry about 10 officers and eight seamen.

There is a Greek proverb which states: "Where there are rich farms, there are no seamen." Perhaps this explains the fact that in Canada, Germany and even the Scandanavian countries, it is increasingly difficult to find many who will go to sea.

River pilots in Canada earn substantially more than ship captains, and have more time at home with their families. It would be impossible for a nation like Canada to justify expenditures on a deep sea ship operating program just to promote employment. In an African or Asian developing nation, a man with enough technical training to command a ship can be happier and more useful ashore—as a bank executive or government official. Wisely the Arabian Gulf states do not insist that their talented nationals go to sea in their ships. These men are needed ashore.

National defense considerations have long been a

"The freedom to select ships and flags which suit them best is an important asset."

cornerstone of U.S. maritime policies. However, both world wars have seen the United States rely upon the allied world fleet for the bulk of its marine transport needs. Canada's analysis of the national defense feature might well be influenced by Arctic considerations. The Canadian Arctic presence is limited to ice breakers and a few commercial carriers. This, in terms of broad national aspirations, is probably not enough.

Five years ago, it was fashionable for political leaders to announce that for every dollar of freight earned under our flag, a dollar is gained in the balance of payments account. Today, developing countries, have come to recognize the fallacy of that idea. This would be true only if, for example, Kuwait built a ship in Japan, insured her in the London market with money borrowed in Canada, and purchased fuel at the vessel's operating convenience—mostly overseas. It is important to remember that stevedoring and terminal costs do not vary with the vessel's flag.

Before World War I, the long Chilean coast was connected with the rest of the world by vessels under the Dutch, British, American and Scandinavian flags. That war left Chile totally cut off and isolated. In order to prevent a repetition of this, CSAV, known as the Chilean Line, was founded. This shipping line has matured to

"The container revolution has transformed, at least on major trade routes, the general cargo business into a big-league exercise dominated by giant combines."

become one of the most respected in the developing world. Protection of trade is an important consideration when discussing establishment of a national merchant marine.

Thirdly, in Malaysia, Indonesia and other Asian countries, the introduction of nationally-owned ships into the economy has been difficult. Individually, these nations do not control enough tonnage to warrant demanding vessel participation. As a compromise, they are seeking allocations of space aboard consortia vessels.

A fourth defense is to defy modernization. Some nations attempt to turn the clock back and decree that there shall not be any modern material handling methods, relying on old-style stevedoring. In India and Asia, government and commercial interests apparently

"There is a Greek proverb which states: 'Where there are rich farms there are no seamen.'"

would like to adopt this position. Indonesia already has. There, working capital and machinery are scarce. Jobs are vitally important. Such defiance is doomed to fail. The Asian nations lie on the main line for the big container consortia which tend to operate on a round-the-world basis. Their ports are necessary for successful international trade.

Finally, and so far most successful, is the defense of a good offense. About 20 years ago, Saguenay Shipping Ltd. entered the North Atlantic trade because Canadian shippers considered the "establishment" shippers' rates too high and service too low. This maneuver could be repeated successfully. Container ship operations are delicate flowers. Operators have high capital investments, high terminal costs and maintain tight schedules at limited ports. A cheap bulk carrier moving bauxite, alumina, sugar, grain or steel can quickly enter any container ship trade and introduce a realistic alternative to a monopolistic situation. This, however, is only possible if the present major maritime power system can be loosened along the lines of the UNCTAD effort.

Until recently, bulk carriers and tankers have not attracted the attention of developing nations. While these nations control a growing 33 per cent of general cargo tonnages, they probably handle less than 5 per cent of the ore, oil and other bulk cargo trades.

"Both world wars have seen the United States rely on the allied world fleet for the bulk of its marine transport needs."

Tankers and bulk carriers are, in size, approaching the physical limits of the Panama Canal, the Straits of Malacca, the U.S. port system and other semi-permanent constraints. Omitting the frills, a bulk carrier is nothing but a simple steel box with an equally simply diesel engine on the back end. Shortly, these uncomplicated pieces of hardware will be manned by crews of less than 18 men. They can move oil, iron ore, bauxite, coal, and grain at one-tenth of one cent per ton mile of the cost of moving the materials by air, rail or road.

Flag preference quotas were unheard of in the bulk cargo trades five years ago. They may be a major factor by 1980. There have always been plenty of bulk carriers and tankers, assuming that the cargo owner was willing to pay the market price. Recently, however, the energy crisis and high market levels have raised questions about availability of vessels in certain areas at any price.

Alarmists point to the fact that Japan builds 52 per cent of all the ships in the world. What would be the result of a political or economic upheaval? Obviously, the shipyard systems of the rest of the world could not take up the slack. Thus, with a stable technology, and the industrial development patterns clear to about 1980, the bulk carrier and tanker world might be attractive for Canadian flag ships.

The 40-40-20 quota systems of some nations may force Canada to have her own ships as a defensive measure. Under this system, 40 per cent of all cargo moves on vessels of the exporting nation, 40 per cent on vessels of the importing nation, and the remaining 20 per cent on so-called cross traders. It is conceivable that enforcement of flag restrictions may be a card of some importance in the hands of a minister of foreign affairs negotiating trade treaties.

"Flag preference quotas were unheard of in the bulk cargo trades five years ago. They may be a major factor by 1980."

Much of the misery in the U.S. maritime picture relates to the fact that U.S. flag vessels have high manning and wage levels. The U.S. operating differential subsidy system provides government payments to make up the cost difference between operating under the U.S. flag and under foreign flags. Consequently, owners faced with the staggering costs of maritime strikes have tended to surrender to labor since the government was paying the bill.

In the shipping industry, the strike weapon is so lethal that management resistance often is impossible. Closing down a modern fleet of ships costing $20 million each could bankrupt even the most affluent owner. A strike involving less than 100 men in a bulk carrier fleet could close down massive operations in the grain, pulp, paper, steel or aluminum industries.

There are no strikes aboard vessels of the Soviet merchant marine or those of other Socialist countries. As a matter of fact, over the past 30 years, strikes have been rare in Scandinavia, United Kingdom and Japan. A recent survey for the U.S. Maritime Administration raised the question of compulsory arbitration agreements. These are appearing in the U.S. steel industry and are certainly being discussed on the shipping side.

Any new Canadian flag operation must seek a better way of settling labor-management disputes. Without it, establishment of a merchant marine is not worth the effort.

A large measure of the tremendous Liberian and Panamanian bulk carrier fleets are owned or operated by major U.S. industrial interests. Between Dec. 31, 1970

and Dec. 31, 1972, the number of American-owned vessels under the foreign flags increased from 467 (26 million deadweight tons) to 552 (34.6 million deadweight tons). Of the 552 ships in 1972, 419 (30.2 million deadweight tons) were tankers.

Despite a wide variety of new incentives under the U.S. Merchant Marine Act of 1970, most U.S. oil companies and private industries still prefer foreign shipping arrangements. This partially explains oil companies' resistance to current U.S. Congressional efforts to place U.S. flag quotas on oil imports.

There are many ways, both good and bad, for assisting a deep sea merchant marine. Best known is the U.S. program. Nearly a billion dollars is spent each year on a merchant marine which, to put it politely, is not thriving.

"In the shipping industry, the strike weapon is so lethal that management resistance often is impossible."

Many nations tend to copy the U.S. preference and subsidy programs. Under the Merchant Marine Act of 1936, U.S. flag liner vessels are subsidized by "differentials". One of these covers the difference between construction of a vessel in the U.S. and construction overseas. The other covers the difference between operation under the U.S. flag as opposed to another flag. From 1936-1946, this worked magnificently and a strong maritime force was created just in time to make a difference in World War II.

However, differential subsidies are a crutch. After 1946, the differential subsidies tended to increase problems they sought to cure. Luther Hodges, Secretary of Commerce under President Kennedy, commented that the U.S. subsidy system seemed to promote and perpetuate mediocrity. The comment, essentially accurate, produced howls of criticism from the powerful maritime lobby in Washington.

While many recognize the structural problems in the U.S. subsidy system, change is difficult. Shipyard and shipping interests, including both management and labor, tend to resist adjustments. President Nixon, assisted by such people as Helen Delich Bentley, Chairman of the Federal Maritime Commission, and Robert Blackwell, Assistant Secretary of Commerce for maritime affairs, has made a strong start. The late 1970s may again see the U.S. fleet on the high seas in a truly competitive way.

Norway does not directly subsidize her successful merchant marine. Nor does she impose any great amount of government regulation. However, she does grant tax advantages to businessmen willing to operate ships under the Norwegian flag. This has the effect of assisting already established management talent.

Until recently, Great Britain had an "investment grant" system. This assisted in the financing of vessels to be operated under the British flag. Though expensive, it was effective in maintaining Britain's maritime position.

In Brazil, maritime affairs are handled in the Ministry of Transport by an organization called Sunamam. This, though far more successful, resembles the old U.S. Maritime Administration. Brazilian-built vessels are made available to commercial operators under attractive financing terms. To some degree, Sunamam is supported by a special tax on imports of manufactured products. However, in the offshore trades, commercial organizations operate with great freedom. In the United States, shipping executives tend to be politicians, bankers and attorneys. These talents are considered more important than maritime ones. Brazil has not made that mistake.

The U.S. system originally locked together assistance for shipyards and ship operators. The drastic difference between the two industries created severe problems. Most European subsidy systems allow owners to build anywhere, and do not have high ship import duties.

Two general conclusions can be drawn by an examination of worldwide maritime subsidy systems.

First, subsidies tied to government, management, regulation or influence do not work. However, financial aid and preferences are effective when they create sound commercial operations which eventually can stand unaided.

"Subsidies tied to government, management, regulation or influence do not work."

The standards usually employed by business leaders, consultants and economists indicate no strong case for Canadian development of a deep sea merchant marine. However, the realities of economic nationalism have changed the game.

In today's explosive transport world, Canada should have some nucleus salt water maritime activity under her flag. The fleet should be self-supporting, commercially oriented and aimed at creating a core of Canadian shipping expertise on both coasts. At first, the venture would require short-term government subsidy and support.

Priority for the new program should be given to a fleet of bulk carriers, or possibly bulk container carrier operations, until the general cargo field stabilizes. Any deep sea merchant marine encouragement program must be separated from shipyard subsidy programs and a Canadian flag operator should be free to import ships without paying duty on them. The start of this program should be made in trades where there is already Canadian expertise and experience.

"Canada would have the opportunity to start with a clean slate..."

Canada's basic maritime laws and regulatory structure should probably have an imaginative review, but only after a new salt water shipping policy has been established.

U.S. labor leaders, shipping people and government officials tend to agree that their chances for progress would be better if they were not saddled with so much precedent built upon an existing, but perhaps outmoded, subsidy structure. Canada would have the opportunity to start with a clean slate, taking the best and eliminating the worst from the successes and failures of the United States, United Kingdom, Brazil, Japan, and the European and Scandinavian nations. ⚓

Born in the United States in 1917, John L. Eyre is a former merchant marine officer and a member of the New York Bar. During World War II he was a U.S. naval officer and served in the Solomon and Philippine Islands.

A graduate of Yale University and the Fordham Law School, he spent 10 years with the Port of New York Authority, working on the creation of a container ship terminal at Newark, N.J., followed by 10 years as a consultant in ports on the Persian Gulf, in Europe and the Americas.

President of the Central Montreal Ministry and a Governor of Montreal General Hospital, he has lectured on and taught transportation subjects at McGill University in Toronto, Harvard, Columbia and several other institutions.

He became president of Saguenay Shipping Ltd. in 1966 and in 1970 was named a director of Alcan Ore Ltd. and president of Alcan Shipping Services Ltd., a new Alcan group company. In 1973, Eyre was elected president of the Canadian Shipowners Assn.

Black Sheep of the Schooner Fleet

By Louis R. Granger

In the years between the Civil War and World War I the United States became the greatest industrial power in the world.

The railroads grew and flourished, towns and cities appeared from coast to coast and industry expanded phenomenally. For the American merchant marine, things were different. In 1860 about 66 per cent of the total ocean-borne commerce of the United States was carried by American flag ships. This figure had dropped to 10 per cent by 1914.

There was, however, one section of the merchant marine that flourished—coastwise trade. During these years there was an increase of nearly 250 per cent in the tonnage of domestic coastwise, lake and river commerce.

Dominating the coastwise service was the schooner, a type of ship developed in the early 1700s. The era of the schooners has been overshadowed by the clippers and steamships, although their contribution to the economic development of the United States is impressive.

But there is a black sheep in every family. One vessel may have helped put an end to the schooner era—the Thomas W. Lawson, the only seven-masted schooner ever built.

The advantages of schooners over square riggers lay in their small crews and handiness in narrow channels and confined waters. In their early years they were used for fishing and short hauls in the New England colonies.

The schooner was designed by Capt. Andrew Robinson of Gloucester, Mass. He launched his fore-and-aft rigged vessel in 1713 or 1714 and as the two-master slid into the water, a spectator exclaimed: "See how she scoons!" "Aye," said Captain Robinson, "a schooner let her be."

Seaworthy, fast and easily handled, and adapted for use in the early 18th century when inland transportation was almost impossible, the schooner carried on trade between the colonies and was an important factor in the growth of the fisheries.

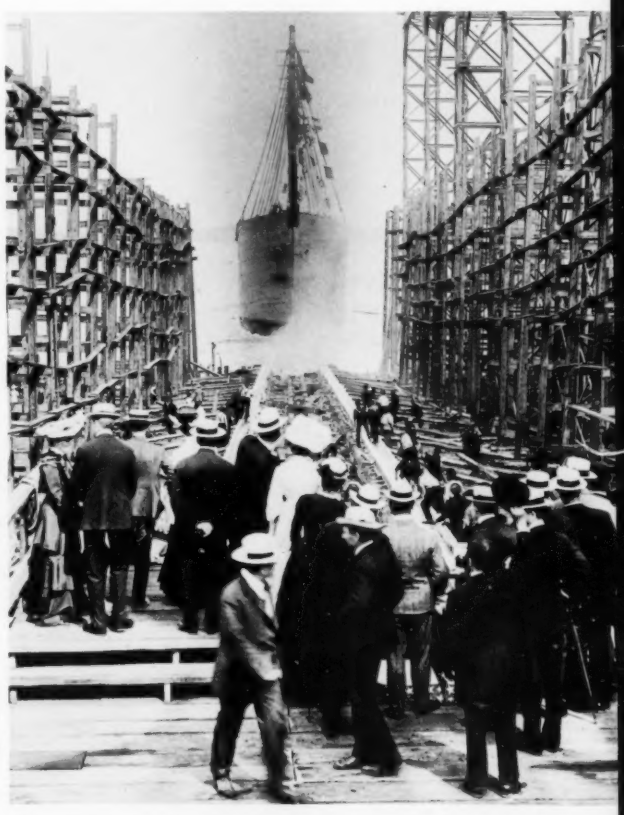
Until about 1850 the American coasting schooner was a rather full-ended, two-master like the packets that ran between Maine ports and Boston. After the Civil War there was rapid expansion of the coastwise trade and the length of coasting voyages increased as did schooner numbers. Three-masters almost monopolized the coasting trades after the war, particularly the lumber business.

Four-masters appeared in 1880 when the William L. White was launched at Bath, Maine. This vessel was the result of the same features that made the three-master popular—increased cargo capacity and low operating costs.

The first five-master, the Governor Ames, was built in 1888, and the first six-master, the George Wells, in 1900. These big vessels were developed to meet the competition of the early barge lines in the coal trade.

And finally, the giant among them all, the Lawson, was designed and built to enter the coasting coal trade. Said to be the largest merchant sailing vessel in the world, Lawson was launched in 1902. Five years later in 1907 she came to her end off the Scilly Isles, England, after her first ocean passage.

The late William Armstrong Fairburn, naval architect, marine engineer and author, aptly described her in his book, *Merchant Sail:*



Launching day at Fore River Shipyard, Quincy, Mass. on July 10, 1902.

"She was doomed from the first to be a white elephant. A steel-hulled brute, she was loggy, unwieldy, sluggish under canvas and difficult to handle."

Difficult to handle indeed. During Lawson's five years, she grounded seven times; capsized three times, twice falling against piers; lost one tow, and sunk once, taking the lives of 16 men. On her maiden voyage from Philadelphia she grounded on Cherry Island flats for a few hours.

She had an all steel hull, 395 feet overall, with a draft of 25½ feet and a beam of 50 feet. Her lower masts were of steel, 135 feet long with Oregon pine topmasts, 58 feet long and carried approximately 43,000 square feet of canvas. The foremast was 33 inches in diameter. Each mast weighed 20 tons. She cost $300,000.

The vessel had a double bottom and the space between the plates held 1,000 tons of water as ballast. She had a forecastle, poop deck, two deck houses and a wheelhouse. The Lawson was lighted by electricity and steered by steam. Six engines were used in handling sails and stevedore work. A 350 horsepower windlass was used to hoist and lower two 10,000-pound stockless anchors. Telephones were installed in the wheelhouse and engine rooms.

The naming of the Lawson's seven masts caused some confusion. Even her first master had two versions. Fairburn said that in the early days of the Lawson "members of the crew named the masts of the schooner for the seven days of the week, but this improvised system had its faults, and later the use of numbers made the designation of the mast supremely simple and extremely efficient even if it ignored the tradition and lore of the sea."

Capt. Arthur Crowley, her first master, said the masts were: fore, main, mizzen, No. 4, No. 5, No. 6 and spanker. Shortly before Crowley died he again was asked the names of the masts. He answered, "I called them fore, main, mizzen, after mizzen, jigger, driver and spanker."

Thomas Hornsby in his article *The Last Voyage of the Thomas W. Lawson* printed in the *Nautical Research Journal*, April 1953, quoted Axel Larson, a first mate on several trips, who recalled them as fore, main, mizzen, jigger, driver, chaser and spanker. Edward L. Rowe, the

Under full sail in Chesapeake Bay.

engineer who survived the sinking of the Lawson, called them: fore, main, mizzen, jigger, pusher, forcer and spanker. E. L. Rowe who made the sails for the Lawson labeled them: fore, main, mizzen, driver, pusher, jigger and spanker. Fairburn called them: foremast, foreward mainmast, mainmast, aftermainmast, mizzenmast, jiggermast and spankermast. And so it went.

The idea of building a seven-masted schooner came from Capt. John Gifford Crowley who managed a fleet of schooners owned by the Coastwise Transportation Co. She was designed by the noted yacht and ship designer Bowdoin B. Crowinshield of Boston. In the spring of 1901, an invitation for bids was circulated and the contract was awarded to the Fore River Ship and Engine Co. of Quincy, Mass. Thomas W. Lawson was a Boston financier who had a large investment in the company and it apparently seemed appropriate to name the vessel after him.

The Lawson was not necessarily a total failure from a financial point of view. It was on the physical side that she showed signs of being a bad guess. She was too large and drew too much water to be maneuvered in all but two East Coast ports, Boston and Newport News, Va. where she would load coal. In light winds, with a heavy cargo, she was unwieldy.

Bigness alone was not the cause of the Lawson's failure as a seaworthy vessel. She was designed in conformity with the old British tradition that an iron ship should be narrower than a wooden one, and the American belief that 50 feet was the absolute maximum beam for a sailing ship.

Put these two together, said Fairburn, and the result is lack of stability.

Schooners were coasters and not meant for long deep water voyages. The weakness of the schooner rig is in sailing before the wind. Unfavorable winds are often encountered over long ocean routes and the square-rigged vessel is best suited for this work.

With long rolling ocean swells and light airs big schooners will thrash themselves to pieces, and the wear and tear on gaff jaws, hoops, canvas and gear is tremendous, according to Fairburn.

Another theory is that she should never have put to sea as a tanker without extensive alterations. She should have been subdivided with additional bulkheads confining the oil in tanks rather than allowing it to flow freely, thereby limiting her ability to stabilize herself and keep from capsizing.

In February 1907 she fell against a dock while loading bulk crude oil. The cargo was discharged before she could be righted and it was found that she leaked around the bulkheads. In June that year while again loading bulk oil she fell against a piling on a pier. Again her cargo was discharged and she was righted from a 32 degree list to 25 degrees enabling her to get out of the mud. The listing was again attributed to leaking bulkheads.

By the fall of 1907 she was chartered to the Standard Oil Co. Her first cargo was nearly 2.5 million gallons of paraffin oil for the Anglo American Co. of London. She had a new captain, George W. Dow of Hancock, Maine. For many years he commanded the bark Auburndale. A bark is a type of square-rigged vessel.

Loaded at Philadelphia, the Lawson departed November 20 for her first—and last—transatlantic passage. Three weeks before this her designer, Crowinshield, delivering a technical paper in New York, stressed that the schooner rig should be limited to the coastwise trade. Less than four weeks after the Lawson left for her first ocean crossing, she lie broken in half on the bottom of the Atlantic with 16 men dead. Surviving were the captain and engineer.

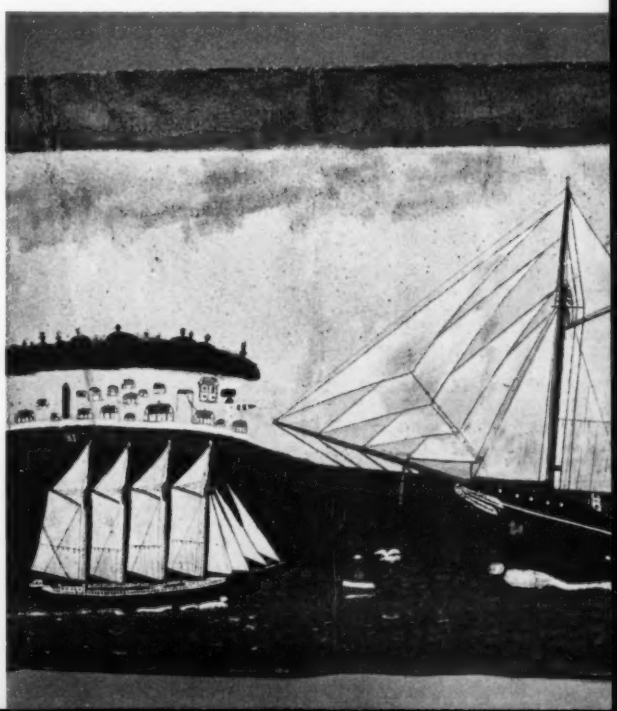
From the start the vessel had "the very worst of passages," said Captain Dow in an interview with a London Times newspaper correspondent. "I have never seen such weather in my life. It was awful, and blowing something wicked. One night I got out over a hundred times and never saw such weather."

By the time the Lawson reached the Scilly Isles half her sails were blown away and a lifeboat and liferaft lost. Only a 20-foot boat remained. All of the deck fittings were smashed, including hatches and the cabin door and the ship was badly strained.

"It was thick weather, but not blowing very hard," said Captain Dow as he approached the islands. "I hauled to as I was about a mile too far to leeward, and when I found she would not fetch by I anchored her with two anchors."

Her anchored position was dangerous. She was in waters teeming with rocks and submerged ledges between Nun Deeps and Gunner's Ledges in Broad Sound.

Facing the fury of a northwest gale accompanied by mountainous seas, she appeared from land to be in most



dangerous positions. The St. Agnes lifeboat was launched and a pilot, William C. Hicks, went aboard.

"At 2:30 on Saturday morning (December 14) the ship's lights disappeared," said The Times. "As the gale had heightened, it was thought at St. Agnes that the lights had been accidentally extinguished. Little did the watchers realize that the Thomas Lawson had gone to her doom, and that of the 19 souls aboard, including one of their own mates (Hicks), only three were at that time struggling from death to tell the tale of the tragic fate of the ship." The third survivor was an English seaman named Allen who lived only a few hours.

Lawson had broken one anchor and the other was dragging. Soon she hit the rocks. The officers and pilot had lashed themselves in the mizzen-rigging and the rest were scattered in different parts of the ship.

She struck broadside, smashing in the starboard side, and causing rigging to sag until the seven masts began to sway with the motion of the vessel as she was buffeted by huge seas. The end came swiftly. She only struck once more and then came destruction. Masts and rigging crashed into the water and thousands of gallons of oil poured out into the sea. Every man had a lifebelt, but nearly all were either dragged down in the rigging, dashed against the rocks, or perished in the floating oil.

One of the two men saved was Engineer Edward L. Rowe of Boston. He told this graphic story.

"When the ship's cables parted, the captain, pilot, and I climbed into the mizzen rigging, each having a fathom or so of rope to lash ourselves thereto. The captain and I passed the lashing round, and without making fast held the two ends in our hands. I think the pilot made a hitch with his. Immediately on the ship striking the rock I dropped on deck, and the sea carried me overboard. I went down under her quarter, passing right under and coming up on the other side, but before reaching the surface I became entangled in the rigging of the masts which had fallen overboard."

"I struggled hard, and for what seemed a long time I could not release myself, and thought of giving up once or twice, but at last by a supreme effort I escaped and came to the top in the boiling sea. I clutched at a piece of wood, and had been carried along some distance, when I saw another man swimming with lifebelts on. I called to him, but he took no notice, and I was still carried along by the sea for about a quarter of an hour. Then I saw him again, and induced him to come and lay hold of the same piece of wood as I had. It was about 12 feet long. As we were being worked along by the sea, I felt another piece of wood rise between my legs. I wound round it, and so was riding, as it were, upon a cross."

"By this time the two of us were rushing straight on to two large rocks, with an opening between them. As we neared them I released my hold of the cross-piece, and clung to the piece between my legs. Luckily for me I did so, for my piece landed me on the rock, while I did not see again the other man who had been holding it."

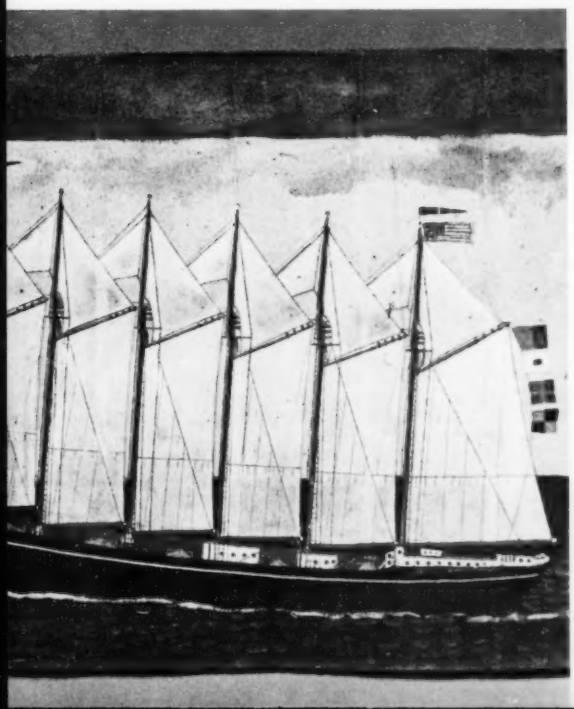
Captain Dow said he was in the water two or three hours, and didn't know how he got to shore. According to The Times, "Captain Dow undoubtedly owes his life to Fred Cook Hicks, a son of Pilot Hicks, who has not been found."

At daybreak on the 14th a crew from St. Agnes volunteered to row out with a gig. They found Allen on the uninhabited island of Annet along with three bodies. After taking Allen to St. Agnes, the crew returned and located Rowe on a rock. They threw him a rope and pulled him through the surf and into the boat.

Rowe said the captain was alive on the rock and helpless. The crew took Rowe ashore and returned for Captain Dow but they could not make a landing. Hicks then took a rope and swam and scrambled through nearly 50 yards of sea and rocks. He found the captain helpless and with a broken wrist. Hicks fastened him with the rope and managed to get him to the gig. Later two more bodies were recovered. Eleven were never found.

Although the Lawson was not singularly responsible for the decline in schooner construction, her loss was a contributing factor to the end of merchant sail.

Smaller coasters continued their trade well into the 20th century. Few if any of the huge, towering schooners were built after the Lawson was lost. Steam colliers and barges won the freight because time became more valuable than cheap transportation. ⚓



This primitive painting, done by an unknown artist, was found by Mrs. Paul Jennewein, an antiques appraiser in the home of a Wilmington, N.C. ship chandler after his death. It is now owned by the author.

PANAMA CANAL IS 60: Officially opening the Panama Canal on Aug. 15, 1914, the SS Ancon passes a slide in the area now known as Gaillard Cut. It was here that the devastating slides occurred during construction days. More than 400,000 commercial vessels have transited the canal since it opened.

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